U.S. Automotive Parts Industry/Market Assessment

Office of Automotive Affairs
Transportation and Machinery
International Trade Administration
U.S. Department of Commerce
May 2003

Executive Summary

The automotive parts industry can expect a slight decline in production and in trade in 2003 because of pessimistic economic forecasts and projected lower vehicle production and sales. The industry should also expect that the Big 3 will continue to demand price or cost cuts as they attempt to regain lost market share. On the other hand, the automotive aftermarket might experience a slight increase in sales in 2003 as older vehicles start needing maintenance and repairs to keep them on the road.

Automakers and suppliers will experiment with innovative and alternate business models to reduce the tension and financial pressure. Despite these experiments, it is likely that a number of auto parts suppliers will leave the market in 2003 because of price and cost pressures from automakers, steel companies, and upstream suppliers.

Production

- Automotive parts accounted for 4.8 percent of the total U.S. manufacturing shipments.
- The value of production in the U.S. automotive parts industry for 2001 was about $191 billion. This was a decline of 8.4 percent from the value of production in 2000.
- When final industry production data are available, 2002 is expected to show little change compared to 2001 buoyed by strong vehicle sales in a weakened economy.
- The U.S. automotive parts industry is expected to face a challenging year in 2003 because of production cut-backs by vehicle manufacturers, price and cost cuts from vehicle manufacturers, a weakened U.S. economy, steel price increases, and industry debt.
- The Bureau of Labor Statistics (BLS), U.S. Department of Labor, reported a 5.5 percent decline in employment in the automotive parts sector from 705,900 jobs in 2001 to 667,400 jobs in 2002.

Sales

- Despite the sales of the top 150 suppliers of North American original equipment (OE) reaching $182.1 billion in 2002 (an increase of 9.5 percent from $166.4 billion in 2001), the industry as a whole is likely to see only minor increase in sales for 2002 when final data is available.
- Suppliers are preparing for declines in automotive sales and production in 2003, by diversifying geographically, increasing research and development, turning to joint ventures, seeking more module contracts, and leaving marginal segments.
- The automotive aftermarket was $178.8 billion in 2001 and is estimated to have reached $185.8 billion in 2002.

- The automotive aftermarket is expected to have increased sales in 2003 as the amount of vehicles of "prime aftermarket age" increases and sales of new vehicles decrease.

International Trade

- World trade of automotive parts was estimated to be about $650 billion in 2000.
- The United States was the world's leading exporter of automotive parts in 2000, accounting for 19.6 percent of the world's exports.
- U.S. exports of automotive parts in 2002 were $50.1 billion, an increase of 0.6 percent over 2001 levels.
- U.S. automotive parts exports to Canada and Mexico accounted for 78.4 percent of the total automotive parts exports in 2002.
- U.S. imports of automotive parts were $69.1 billion in 2002, an increase of 10.1 percent over 2001 levels.
- The United States imported $37.3 billion worth of automotive parts from Mexico and Canada in 2002. These imports accounted for 54 percent of the total U.S. automotive parts imports.

Industry Issues

- As a result of the steel safeguards, U.S. automotive industry representatives predict that in the 2nd and 3rd quarter of 2003, many automotive suppliers will have to close their businesses or have to move their facilities overseas where they can purchase steel and other raw materials at global prices.
- The value of mergers and acquisitions in the automotive parts industry dropped 92 percent from $6.7 billion in 2000 to $517.8 million in 2001.
- Industry analysts report that many small automotive suppliers will file for bankruptcy or close their doors because of slowing automotive production, cost-cutting pressures, and banks pulling back on loans to debt-laden suppliers.
- There is concern among some industry representatives and analysts about the viability of the industry's current business model and relationship between vehicle assemblers and suppliers, which is driving down the already low profit margins of the suppliers.

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Economic Overview

The U.S. automotive parts industry has long played a vital, yet often underestimated, role in the U.S. economy. Naturally, the automotive parts industry is directly affected by the state of the motor vehicle industry, a key element in the country's Gross Domestic Product (GDP) (chart 1). In Calendar Year (CY) 2001, auto parts industry shipments[1] of $191 billion accounted for 4.8 percent of total U.S. manufacturing shipments[2] (tables 1 and 2). This is one of the highest percentage shares of any single U.S. industry. However, this figure reflects a decrease of 0.3 percentage points from the 5.1 percentage share held by automotive parts industry shipments in 2000.

Despite indications of a rough year early in 2002, automotive parts industry production is expected to show little change or maybe even a slight increase compared to 2001 production, when final numbers are reported, because of strong vehicle sales in a weakened economy in 2002. However, 2003 is expected to be a challenging year for the U.S. automotive industry. Analysts predict that North American light vehicle sales volumes will be down 3 percent and the U.S. market is forecasted to be about 16.4 million units.

The most recent Annual Survey of Manufacturers (with data through 2001) showed the value of automotive parts product shipments[3] in 2001 was $189 billion (table 2) and that the industry's 777,774 jobs in CY 2001 accounted for 4.9 percent of total manufacturing employment[4]. The U.S. automotive parts industry is also one of the largest U.S. export industries, accounting for 7.2 percent of total U.S. merchandise exports in 2002[5] (table 3).

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[1] Industry Shipments measure the production of automotive parts industry establishments, regardless of product. Product Shipments measure the production of automotive parts, regardless of the type of establishment.

[2] U.S. Department of Commerce, Bureau of the Census, *Annual Survey of Manufacturers*, February 2003.

[3] Industry Shipments measure the production of automotive parts industry establishments, regardless of product. Product Shipments measure the production of automotive parts, regardless of the type of establishment.

[4] U.S. Department of Commerce, Bureau of the Census, *Annual Survey of Manufacturers*, February 2003.

[5] U.S. International Trade Commission Trade DataWeb.

It is estimated that original equipment parts account for between 67-75 percent of total automotive parts production and that aftermarket equipment accounts for between 25-33 percent. Original equipment parts are those parts that are used in the manufacture of vehicles. Aftermarket parts include replacement parts, accessories, and add-on parts. It is difficult to estimate exact percentages in terms of sales because the prices paid by vehicle assemblers for original equipment parts are not comparable to prices paid by automotive consumers. Vehicle manufacturers are able to negotiate price contracts with parts suppliers on original equipment, while vehicle owners most often pay retail for automotive parts.

The Original Equipment Suppliers Association (OESA) reported that the worldwide market for Original Equipment (OE) automotive parts declined 6.4 percent from $787.6 billion in 2000 to $740.2 billion in 2001[6] (table 4). This is the second year OE parts experienced a decline from a high of $812 billion in 1999[7]. The actual value of parts per-vehicle also declined from $14,053 in 1999 to $13,242 in 2000 and $12,892 in 2001[8]. OESA reported that this reflects a number of factors including greater global competition among parts suppliers, increased economies of scale, a decline in global vehicle production, and cost cuts demanded by vehicle manufacturers.

The Asia-Pacific region, Europe, and North America each accounted for just under $250 billion of the global OE market in 2001[9]. Combined, the three regions account for roughly 95 percent of the global market for OE parts.

Production

The 2002 Survey of Manufacturers counted 777,774 workers in the automotive parts industry (NAICS 3363211 Motor Vehicle Body Manufacturing and NAICS 3363 Motor Vehicle Parts Manufacturing) in CY 2001 down 8.1 percent from 846,419 in 2000[10] (table 2). The average growth rate in employment in the automotive parts sector was 1 percent per year between 1997-2000.

The Bureau of Labor Statistics (BLS), U.S. Department of Labor, also reported a steep decline in employment in the automotive parts sector from 705,900 in CY2001 to 667,400 in CY 2002, a

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[6] Original Equipment Suppliers Association, *Industry Review 2002*, p. 100.

[7] Original Equipment Suppliers Association, *Industry Review 2002*, p. 100.

[8] U.S. Department of Commerce, Bureau of the Census, *Annual Survey of Manufacturers*, February 2002.

[9] Original Equipment Suppliers Association, *Industry Review 2002*.

[10] U.S. Department of Commerce, Bureau of the Census, *Annual Survey of Manufacturers*, February 2002.

decline of 5.5 percent (table 5). The employment numbers differ from the Survey of Manufacturers taken by the U.S. Department of Commerce in part because BLS uses Standard Industry Classification (SIC) codes rather than NAICS codes. The SIC codes used in calculating the automotive parts employment numbers were 3714: Motor Vehicle Parts and Accessories, 3465: Automotive Stampings, 3592 Carburetors, Pistons, Rings, and Valves, and 3694: Electrical Equipment for Internal Combustion Engines. Each of these industries experienced a decline in employment in both 2001 and 2002 (table 6). 3714: Motor Vehicle Parts and Accessories declined from 552,200 employees in 2000 to 511,300 employees in 2001 and 489,300 employees in 2002. 3465: Automotive Stampings went from 122,700 employees in 2000 to 113,000 employees in 2001 and 107,600 employees in 2002. 3592 Carburetors, Pistons, Rings, and Valves, dropped from 24,000 employees in 2000 to 21,900 employees in 2001 and 20,000 employees in 2002. 3694: Electrical Equipment for Internal Combustion Engines went from 69,300 employees in 2000 to 59.7 employees in 2001 and 50,500 employees in 2002.[11]

The value of U.S. automotive parts industry shipments in CY 2001 was $190.7 billion, which was an 8.4% decrease from the value of shipments in 2000[12] (table 2). Although the industry experienced some growth in CY 2000, the slowdown in production was becoming evident when the value of industry shipments increased only 0.8 percent from $206.6 billion in 1999 to $208.2 billion in 2000. However, the value of industry shipments in 1999, was a dramatic increase of 10.2 percent over 1998's levels[13]. It is likely, considering the decrease in value of content and the sales indicators of the largest auto parts suppliers in 2002, that the value of industry shipments will not change much or will register a decrease in 2002.

Aftermarket Parts

The health of the automotive aftermarket parts industry is in large part affected by the number of vehicles on the road, and the age of the vehicles. In CY 2000, there were 213.3 million light vehicles on the road in the United States, compared to 198.3 light vehicles in 1996[14]. The average age of the vehicles increased from 8.5 years in 1996 to 8.7 years in 2000[15]. This increase reflects improved overall durability, but also indicates a growing market for replacement aftermarket parts such as filters, mufflers, brakes, and tires.

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[11] U.S. Department of Labor, Bureau of Labor Statistics Data.

[12] U.S. Department of Commerce, Bureau of the Census, *Annual Survey of Manufacturers*, February 2002.

[13] U.S. Department of Commerce, Bureau of the Census, *Annual Survey of Manufacturers*, February 2002.

[14] R.L. Polk & Co., 2002. www.polk.com

[15] R.L. Polk & Co., 2002. www.polk.com.

The automotive aftermarket sectors do not feel the price and cost cut pressures from OEMs that the OE supply chain feels, but is still affected by the state of the economy. The size of the U.S. automotive aftermarket (parts and labor) in 2001 was estimated to be between $178.8 billion and $201.3 billion and was predicted to increase roughly 4 percent in 2002.[16] The automotive aftermarket segment increased 4.8 percent over 2000 to $178.8 billion[17] (table 7). The Automotive Aftermarket Industry Association (AAIA) predicted that the total road vehicle aftermarket will experience a 3.4 percent growth by the end of 2002 to $264.1 billion and the automotive segment of the aftermarket will increase by an estimated 3.9 percent to reach $185.8 billion[18]. The Motor and Equipment Manufacturers Association predicted that the aftermarket will reach $218.5 billion in 2003 based on several economic factors (table 7).[19] These factors include economic recovery, number of vehicles reaching prime aftermarket age of about 8 years, cost of oil, amount of unperformed maintenance, and the ability to get or keep used cars in circulation.

In a study by Feedonia Group, the automotive aftermarket (parts at manufacturer level) in North America is projected to increase at an annual rate of 3.5 percent, reaching $53 billion by 2006. The best prospects were in the electronic and electrical equipment aftermarket niche, including sound systems, multi-media, telematics, and safety controls. Because of increased quality and durability in original equipment, the aftermarket experienced a slowing of demand, but as these vehicles continue to age, the aftermarket demand should increase between 2001 and 2006.

The largest sector in the automotive aftermarket is the mechanical products. These are the replacement parts, like engine, chassis, drivetrain, and suspension parts. While these products have seen substantial improvement in quality and durability at the OE level, they will eventually wear out. The "aftermarket sweet spot"[20] is between 7-12 years of age, is when these products begin to need replacement. The large number of vehicle sales in the mid- to late-1990s, indicate that there should be a large number of vehicles entering the "aftermarket sweet spot" between 2003 and 2006. A downturn in the economy does not hurt the aftermarket as much as it does the original equipment market. During a downturn, there are less new cars sold, keeping older cars in use. These older cars will require some necessary maintenance. However, vehicle owners will often put off unnecessary maintenance. During good economic times, newer vehicles sales

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[16] *AAIA 2002/2003 Aftermarket Factbook* and *Focus (MEMA)*, Fall 2002.

[17] Aftermarket Insider, 12/01.

[18] Aftermarket Insider, 12/01.

[19] *Focus*, Fall 2002.

[20] Term coined by Frank Hampshire in *Focus*, Fall 2002.

will remove some older vehicles from use, reducing necessary maintenance, however, it is during these times when the unperformed maintenance of vehicles will be performed.

The specialty equipment sector of the aftermarket has also continued to experience growth. In 2001, total specialty equipment sales at the manufacturer level was $9.02 billion in 2001, up 3.84 percent from 2000 rates (table 8).[21] The retail sales figures for the specialty equipment industry in 2001 were nearly $26 billion.[22] The specialty equipment industry tends to be smaller manufacturers, close to the consumer, allowing it to respond to consumers' desires, innovate, and bring new products to the market quickly. The growth of the light truck market has also increased demand for specialty equipment. The light truck market niche accounts for 31.7 percent share of the manufacturer market (table 8).[23]

The light truck fleet has grown faster than the passenger car over the last five years, achieving a 3.8 percent annual average growth rate compared to a 0.6 percent rate for passenger cars. According to the Speciality Equipment Market Association, the number of U.S. trucks in use rose from 66.5 million in 1996 to 80.5 million in 2001, an increase of 33.1 percent, and the median age of trucks in operation was 6.1 years in 2001, compared to 7.9 years in 1996[24]. SEMA reported that consumers modifying their light trucks approach it from three perspectives: maintaining the truck's value, matching the truck to lifestyle, and improving the truck's utility value. Since 1996, the light truck niche of the specialty equipment market has grown 58.4 percent going from $1.8 billion to $2.9 billion[25] (table 8).

Sales

Original Equipment

North American sales for the top 150 original equipment suppliers rebounded in 2002 by about 9.5 percent, from $166.4 billion in 2001 to $182.1 billion in 2002[26] (table 9). *Automotive News* credited much of this rebound to a 5.3 percent growth in North American vehicle production, fueled by the automakers' incentive programs. Original equipment North American sales decreased in 2001 when only $166.4 billion in sales were reported, down over 8 percent from

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[21] *SEMA News*, 11/02

[22] *SEMA News*, 11/02

[23] *SEMA News*, 11/02

[24] Specialty Equipment Market Association, *SEMA News*, September 2002.

[25] Specialty Equipment Market Association, *SEMA News*, September 2002.

[26] *Automotive News*, 3/24/03, www.automotivenews.com .

2000 figures.[27] The top 10 suppliers of original equipment (OE) parts to automakers in North America saw their North American sales increase 4.7 percent to $78.5 billion in 2002 from 2001 rates. The previous year (calendar year 2001) saw an 11.2 percent decline in sales from 2000 levels[28]. With the exception of ArvinMeritor Inc. and the inclusion of American Axel & Manufacturing Holdings Inc., the top ten suppliers ranked in the top ten in 2001 and 2002, but with slight position jockeying.

The increase in OE sales in North America in 2002 was credited to strong vehicle sales and outsourcing by automakers. However, the decline in North American OE sales in 2001 was in part because of price cut demands from automakers, production cut-backs, a slump in heavy-truck sales and a recessionary economy. Similar economic hits experienced in 2001 are expected to hurt suppliers in 2003. Automakers are cutting back on production and declining parts sales have resulted in thousands of layoffs by auto parts makers.

Globally, the top 100 OEM suppliers had $347.9 billion in sales in 2001, a decline of less than 1 percent from $350.6 billion in sales in 2000. The top 10 global OEM suppliers saw a 5 percent increase in sales from $132.8 million in 2000 to $139.8 million in 2001 (table 10). Eight global OEM suppliers have been on the top 10 global OEM suppliers list for the past 3 years. These companies are Delphi Corporation, Visteon Corporation, Robert Bosch GmbH, Denso Corporation, Lear Corporation, Johnson Controls, Magna International Inc., and TRW automotive. Delphi Corporation, since its spinoff from General Motors in the late 1990s, has topped the chart as the leading global OEM supplier. Visteon, which was spun off from Ford Motor Company, held the number two position until 2001 when Robert Bosch GmbH, a German company, took that position.

Of the top 50 global OEM automotive parts suppliers, 20 are headquartered in the United States. These companies accounted for 45.4 percent of the top 50 companies' worldwide sales of $283 billion in 2001[29]. The U.S. automotive parts industry has about a 30 percent share of the global market. In 2000, U.S. automotive parts exports accounted for 19.6 percent of the world's total auto parts exports (table 9).

Suppliers are preparing for further declines in global auto sales and production in 2003. In response, many Tier 1 suppliers are diversifying geographically, increasing research and

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[27] *Automotive News*, *Top 150 OEM parts suppliers to North America*, 3/25/02. www.automotivenews.com

[28] *Automotive News*, *Top 150 OEM parts suppliers to North America*, 3/25/02. www.automotivenews.com

[29] Automotive News, *Top 100 global OEM Suppliers*, 6/17/02. www.automotivenews.com

development, turning to joint ventures, seeking more module contracts, and leaving marginal segments.[30]

U.S. Automotive Parts Trade[31]

World trade of automotive parts reported to the United Nations was estimated to be about $650 billion in CY 2000. The United States was the world's leading exporter of automotive parts. In CY 2000, U.S. automotive parts exports of $53 billion accounted for 19.6 percent of the world's exports, according to U.N. trade data (table 11).

U.S. exports of automotive parts reached $53.7 billion in CY 2000 but fell 7.3 percent to $49.8 billion in CY 2001 (table 12 and chart 2). CY 2002 data showed that U.S. automotive parts exports increased about 0.6 percent over 2001 rates to $50.1 billion. Automotive parts exports to Canada ($28.0 billion) and Mexico ($11.3 billion) accounted for 78.4 percent of the total U.S. parts exports in 2002 (chart 3). U.S. automotive parts exports to other leading export markets of Japan and the European Union accounted for $6.8 billion, or 13.5 percent, of the total U.S. automotive parts exports. Combined the NAFTA, European, and Japanese markets accounted for 91.9 percent of the total U.S. automotive parts exports in 2002.

U.S. imports of automotive parts reached $67.0 billion in CY 2000 and fell 6.3 percent to $62.7 billion in 2001 (table 13 and chart 4). Automotive parts imports into the United States increased 10.1 percent in 2002 over 2001 rates to reach $69.1 billion. In 2002, Canada, accounted for $17.2 billion worth of U.S. automotive parts imports and Mexico accounted for $20.1 billion (chart 5). Together automotive parts from these two countries accounted for 54 percent of the total U.S. automotive parts imports. Rounding out the top five supplier countries of automotive parts to the United States in 2002 were Japan ($13.5 billion), Germany ($4.3 billion), and China ($2.2 billion). Combined, Mexico, Canada, Japan, Germany, and China accounted for $57.4 billion or 83 percent of the total U.S. imports of automotive parts.

The sharp decline in imports in 2001 resulted in a decline in the U.S. trade deficit in automotive parts from $13.2 billion in 2000 to $12.9 billion in 2001 (table 14 and chart 6). However, the sharp increase in parts imports accompanied by only a slight increase in parts exports in 2002 resulted in a deficit increase of 46.9 percent to $19.0 billion. The automotive parts trade deficit with Japan was $11.2 billion in 2002, a negligible increase of 0.6 percent over 2001 rates. While the deficit with Mexico was $8.7 billion, the United States had an automotive parts surplus of $10.8 billion with Canada in 2002.

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[30] *Automotive News*, 10/28/02.

[31] U.S. Department of Commerce, Bureau of the Census, trade data, unless otherwise noted.

Industry change/restructuring

The U.S. economy, like most major world economies, is currently in a downturn. Naturally, because the automotive industry is an important link to other economic sectors, any economic downturn will affect the automotive industry. Logically, trends in the automotive parts industry follow the motor vehicle industry. However, there is a perception that even in periods of downturn in the motor vehicle sector lost OE automotive parts production and sales will be offset somewhat as demand for replacement parts for vehicles-in-use increases. This perception is not always correct as consumers will also delay all-but-essential repairs during a recession. Additionally, the durability of parts has increased from previous decades, resulting in less need to replace many normal wear parts. Therefore, declines in OE parts production and sales may no longer be offset by increases in the demand for aftermarket parts.

As the world's major auto makers attempt to continue to expand their manufacturing operations in markets like North America, Europe, Asia, and Latin America, U.S. OE suppliers have responded by revamping operations to be able to manufacture for and supply auto makers worldwide. However, vehicle production slow-downs in the waning months of 2000 adversely affected suppliers. Several of the largest U.S. auto parts suppliers, including Lear Corp, Visteon, and Tenneco, had to eliminate jobs and reorganize. Since late 2000, Delphi Corp. Has cut about 24,000 jobs and Dana Corp. cut about 17,000 jobs.[32] In March 2003, Visteon laid off about 270 employees from some of its U.S. plants and plans to continue lay offs through the year, partly in response to Ford Motor Company's, Visteon's largest customer, plans to cut production by over 15 percent in the second quarter of 2003.[33]

Another example is TRW Automotive. Northrup Grumman Corp. has expressed an interest in purchasing TRW Inc., but not its TRW Automotive subsidiary. Of key issue is TRW's $5.8 billion debt, much of which it accumulated following its purchase of auto parts supplier LucasVarity for nearly $7 billion in 1999.[34] In early 2003, The Blackstone Group, a New York-based private equity group, negotiated with Northrup Grumman Corp. to purchase a 58 percent stake in TRW Automotive for $4.7 billion.[35]

Other factors that adversely affected suppliers beginning in late 2000 and carried through 2002 included continued cost-cutting pressures from auto makers, increased pressure for market share

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[32] *Automotive News*, 2/10/03.

[33] *Automotive News,* 3/17/03.

[34] *Automotive News, 9/2/02.*

[35] www.crainsdetroit.com , 2/4/03.

by competitors (especially European suppliers), divestitures by some companies, and a slowdown in merger activity.

Because of the large share of domestic production, employment, and exports, increasing the U.S. automotive parts industry's domestic and international competitiveness is of vital importance to the entire U.S. economy. The health of many major U.S. industries, such as metals, plastics, and electronics, is dependent on the performance of the U.S. automotive industry. Increased exports of U.S. automotive parts would also result in an increase in high-wage jobs. The Economics and Statistics Administration of the U.S. Department of Commerce estimates that every $1 billion in additional U.S. automotive parts exports will create 6,000 jobs.

Steel

The health of many major industries, such as metals, plastics, and electronics, also has repercussions on the automotive industry. The recent steel safeguards imposed by the Administration has dramatically affected the automotive industry.

North American automotive manufacturers and suppliers use nearly 18 million tons of steel per year (1998 figures)[36]. According to industry sources, the larger OEM and Tier 1 suppliers have been able to insure their supply of steel, while smaller automotive suppliers are experiencing some difficulties. These sources report the increase in the price of steel combined with very small profit margins are driving some automotive suppliers out of the industry. Also, in some cases, imported finished automotive parts products are displacing steel as imports.

Automotive parts suppliers found themselves squeezed by increasing steel prices shortly after the steel safeguard was issued. Prices of hot-rolled steel rose more than 20 percent per ton in the first three months of the new tariffs.[37] The contracts with steel suppliers held by smaller suppliers have been "torn up" and prices were raised by more than 30 percent, as steel producers claim they have no choice but to pass on higher costs from steel mills[38]. Motor and Equipment Manufacturers Association (MEMA) reported that steelmakers have unilaterally voided terms or prices of many steel contracts and that steel costs rose from 20 to 60 percent in 2002.[39]

The automakers and large Tier 1 suppliers have shown little inclination to assist smaller suppliers or grant price increases. Automakers and large Tier 1 suppliers have long-term

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[36] According to the American Iron and Steel Institute in *The Autoparts Report*, 6/21/02.

[37] *Automotive News*, 6/17/02.

[38] *Automotive News*, 6/17/02.

[39] *The Autoparts Report*, 2/19/03.

contracts and have a lot of buying power to offset shortages and price surges. However, even automakers and Tier 1 suppliers have found themselves at odds with steel producers as the steel companies try to renegotiate the contracts. Bankruptcies and consolidation in the steel industry along with higher tariffs has given steelmakers a lot of leverage in contract agreements.

Although AK Steel has said it will continue to fulfill its contractual obligation to GM, AK Steel has filed a complaint against General Motors, seeking to recover at least $25,000 in costs related to increased testing and quality control measures. GM has countered by saying that it "will not pay a premium, however characterized, to AK or any other supplier to receive the quality of products that they previously agreed to provide."[40]

Suppliers have lobbied against the steel tariffs. MEMA gathered data from 16 select automotive parts manufacturers to determine the impact of the Section 201 steel tariffs on the U.S. auto parts industry. They found a reported cost of $121 million for the 16 manufacturers in 2002 directly attributable to higher steel prices and a reported cumulative loss of $12 million in 2002 because of longer lead times and delivery problems with steel materials. The 16 manufacturers will have a projected $213 in 2003 because of the increased steel prices. While MEMA recognized the importance of a domestic steel industry, the 201 tariffs put the U.S. steel consuming manufacturers, like the automotive parts industry, at stake. MEMA reports that the steel tariffs are making it difficult for companies to operate in the United States, export from the United States, and source raw materials in the United States. At this rate, MEMA predicts that in the 2nd and 3rd quarter of 2003, many automotive suppliers will have to close their businesses or have to move their facilities overseas where they can purchase steel and other raw materials at global prices.

During the first round of exclusions, the U.S. automotive parts industry was unable to gain much relief.

MEMA supported the Knollenberg House Resolution, which called upon the President to require that the International Trade Commission consider the effect of the tariffs on steel-consuming industries in the United States. This analysis would be included in the U.S. ITC's midterm review of the steel safeguard program.

MEMA highlighted three areas of concern to the supplier industry because of the steel tariffs. The first was the concern that the production of automotive parts and components, as well as cars and trucks, could be disrupted because of the allocation and rationing of domestic steel. The second was the steep and sudden increases in raw material costs which can not be carried forward to vehicle manufacturers. The third was the shift of customers' purchases from

[40] *The Autoparts Report*, 2/19/03.

domestic to foreign sources of automotive parts and assembled component systems.[41] MEMA is concerned that higher steel costs threaten the viability of a strong American manufacturing base.

Because automotive production is expected to be cut back in 2003, the automotive industry is likely to use less of their contracted steel. Traditionally, automotive-grade steel suppliers redirect some of this material to the spot market and an oversupply situation could develop, pressuring spot sheet prices down in 2003.

Mergers, Acquisitions, and Bankruptcies

For several years, automotive suppliers have operated on very thin profit margins because of price cuts demanded by vehicle makers. Although most small automotive suppliers are profitable, the profit margins are so slim that disturbances in the economy like increased steel prices, could leave many suppliers in financial trouble. If the vehicle makers continue financial pressure on their supply base, the result will likely be more bankruptcies. If this happens, vehicle makers could also suffer because there would be fewer qualified suppliers and less supplier revenue to support research and development.

The major competitors of U.S. automotive parts companies are the European and Japanese based automotive parts companies. In the top 50 global OEM parts suppliers in 2001, the United States has 20 companies, while Japan has 13, Germany has 9, and France has 5. The remainder of the top 50 are companies from Canada, Sweden, and Italy. U.S. parts supplier, Visteon Corporation, was bumped from its number 2 position in 2000 to number 3 in 2001 by Robert Bosch GmbH of Germany[42] (table 10).

The value of mergers and acquisitions in the automotive parts industry (SIC 3714- Motor Vehicle Parts) dropped 92 percent from $6,656.5 million in 2000 to $517.8 million in 2001, although the number of deals remained at 41, according to AAIA (table 15). This is a significant decline from 1998 when the number of deals was 63 worth $22,495.4 million[43]. Economic woes put a virtual freeze on merger and acquisitions, which had been an engine of sales growth in previous years, and increased the number of bankruptcy filings. Between CY 1992 and 2000 there were an estimated 188 major acquisitions and joint ventures among auto suppliers.

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[41] *The Autoparts Report*, 6/21/02.

[42] Automotive News, *Top 100 global OEM Suppliers*, 6/17/02. www.automotivenews.com

[43] Automotive Aftermarket Industry Association, *Aftermarket Factbook 2002*

Between 1995 and 2001 the industry's 23 largest publically traded suppliers consolidated industry sales from $62 billion to $112 billion[44]. The merger and acquisition boom left little trace of benefits to supplier operating margins and returns on capital employed. Disappointing share returns and large debt losses left a cloud over suppliers in need of the capital markets. Bankruptcies and distressed credits have generated $8 billion in losses to auto supplier lenders since 1999[45]. Debt levels among the top 23 suppliers tripled during the seven years - rising five times faster than the market value of the group's common stock. Alleviating the capital squeeze requires innovative supplier strategies. Those who won't survive will include the undiversified and unfocused.

Merger and acquisition activity in Europe also slowed in 2001 as automotive suppliers focused on getting maximum efficiency from existing operations[46]. Companies concentrated more on their own internal restructuring and refocusing investment rather than trying to acquire others to gain something new. Suppliers were much more selective about their acquisitions than they had been before. Drivers for growth are technology, engineering, focus on core competencies and worldwide presence to benefit from continual outsourcing by automakers.

Analysts report that there are "an unprecedented number of European suppliers for sale", although this does not mean there will be record number of deals in 2003.[47] The asking prices are high and not many potential buyers have the resources to make acquisitions. Although it is a buyers market, most Tier 1 suppliers are cautious after being stretched thin with many acquisitions in the 1990s.

A study by A. T. Kearney consulting firm found global acquisition activity in the automotive industry declining in 2001, with the largest drop occurring in North America. Although acquisition activity was down, there was a "significant inventory" of segment divestitures across the supplier industry and private equity investors are very active in the industry.[48]

In early 2003, Federal-Mogul agreed to a bankruptcy reorganization plan that would give creditors 49.9 percent of the shares in the new company and set aside the remaining shares to pay asbestos claims. Federal-Mogul pursued an aggressive growth plan in the 1999s to become a Tier 1 engine module supplier. As a result of its acquisition of T&N plc, Federal-Mogul also

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[44] *Automotive News*, 3/21/02.

[45] *Automotive News*, 3/21/02.

[46] *Automotive News*, 1/28/02.

[47] *Automotive News*, 2/10/03.

[48] *The Autoparts Report*, 6/21/02.

acquired much of its asbestos liabilities. When Federal-Mogul filed for bankruptcy in 2001, it had 360,000 asbestos-related claims against it. Prior to filing for Chapter 11 protection, Federal-Mogul had set aside $2 billion to resolve suits over auto parts containing asbestos. Since filing for protection, Federal-Mogul has been selling off businesses to reduce costs.[49]

Breed Technologies Inc., is another example of an auto parts supplier that filed for Chapter 11 protection after an acquisition spree in the 1990s left it unable to pay creditors. Breed is the fourth largest safety systems suppliers and supplies airbag systems to most of the world's automakers. In early 2003, Breed was close to being sold to Carlyle Management Group in a deal valued at $315 million.[50]

Industry analysts expect that in the first half of 2003 there will be many small auto suppliers filing for bankruptcy or closing their doors because of slowing auto production, cost-cutting pressure and banks pulling back on loans to debt-laden suppliers. Both GM and Ford have cut their 2003 second-quarter production by 9.6 percent and 17 percent respectively. Banks are reluctant to lend to automotive parts suppliers, especially those with more debt than there is equity. The potential of increased bankruptcies among smaller suppliers has large Tier 1 suppliers like Delphi Corporation concerned about its supplier base and is sending out engineers and turnaround experts to assist in keeping the smaller suppliers operating.[51]

Post-September 11, 2001

Following the terrorist attacks of September 11, 2001, the U.S. automotive industry took action to benefit the economy and automotive sales by offering aggressive incentives like zero-percent financing. U.S. sales of light vehicles reached 17.2 million units in 2001. Without the incentives, it was estimated that sales would have been about 16.2 million units.[52] However, by "pulling sales forward", the incentives put tremendous pressure on the profits of the vehicle assemblers, which in turn, demanded cost cuts from suppliers.

Security concerns have prompted proposals from U.S. Customs Service to require automakers, suppliers, and trucking companies to file manifests of their cargo electronically four hours before the trucks arrive at the U.S.-Canada border as part of the Maritime Port Security Act of 2002. Whatever changes are made to the new regulations must be in place by May1, 2003. The four hour lead time on loading trucks and transmitting manifests is problematic for suppliers and

[49] *Automotive News,* 2/10/03.

[50] *Automotive News*, 2/10/03.

[51] *Detroit Free Press*, 3/26/03.

[52] *Automotive News*, 9/2/02.

automakers because many use "just-in-time" operations, sending shipments across the border in less than an hour, and the new requirements would add millions to production costs.

Automotive suppliers fear that Canada is or has lost its appeal as an auto manufacturing market because congested border traffic are causing automakers to begin considering other supply networks. Suppliers suggest that there should be more traffic lanes between Detroit and Ontario, more staffing of customs inspection operations at the Ambassador Bridge, and the use of electronic border crossing systems that would allow business related crossing without a stop for security clearance.[53]

Business Model - OEM and Supplier Relations

Industry representatives and analysts have expressed concern about the current business model and relationship between vehicle assemblers and suppliers. The cost orientation of assemblers is further driving down the already low profit margins of the suppliers.

Some industry analysts think the business model of the automotive supply chain is broken. According to a survey of 600 lower tier suppliers by Plante and Moran LLP consulting firm, 15 percent of the chain is in dire straits and unlikely to survive if the status quo is maintained. Only 20 percent of the lower tier suppliers are actually having success with the status quo, partly because they have the clout to resist price cuts. The study also found that 70 percent of the suppliers have positive cash flow, but are producing returns 25-40 percent below required thresholds over the long term. Many suppliers have high debt levels and are vulnerable to disturbances in the economy.[54]

On the other hand, other industry analysts don't think the business model is broken, but rather that most automotive suppliers have not adjusted to the new automotive environment. Some of the strategies that IRN Inc. consulting firm suggested included becoming a lower cost producer by making an undifferentiated commodity, taking advantage of and/or minimize the risk of technological change, minimizing the asset intensity of the business, and developing a healthy program and customer mix. IRN Inc. also suggested that suppliers of value-added parts should view participation in Europe as a way to avoid technological obsolescence of products in North America. There is greater experimentation in changes in materials taking place outside of North America and "most significant advances in powertrain and electronic application to mechanical assemblies are taking place first in Europe and, to a lesser degree, Asia".[55]

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[53] *Automotive News*, 12/2/02.

[54] *Wards Automotive Reports*, 9/16/02 and *Automotive News*, 2/10/03.

[55] Presentation by IRN Inc. At the 7th Annual APMA Automotive Outlook Conference, in *Desrossiers*, 12/31/02.

Suppliers can expect to face continued requests for cost reductions from vehicle assemblers and Tier 1 suppliers. In a study by the Roland Berger consulting firm it was suggested that suppliers should choose one of three business models- system integrators, technology satellites, or process satellites. System integrators, focusing on program management and cost control, add value to subsystems for other suppliers. Technology satellites develop unique technologies, relying heavily on r&d and strong engineering staff. Process satellites develop better processes for low-cost, high-volume manufacture of commodities and may outsource manufacturing of the commodities.[56]

The industry has been making attempts at collaboration through the Automotive Industry Action Group (AIAG) and the Society of Automotive Engineers (SAE). Industry executives offered logistics as a good example of over-competition. Originally the Big 3 each did logistics and did it efficiently. Then they got out of logistics and gave the Tier 1 suppliers the responsibility of managing the supply chain. Each Tier 1 now has to add a logistics function, which adds a cost. The industry executives don't believe that the Big 3 should manage the supply chain, but something should be done[57] and suggested a consortium of suppliers, OEMs, and others to concentrate on the commonization of standards for process and procedures that interrelate the chain as a unit. Other industry representatives aren't sure that a consortium is the answer, but do see a lot of waste in the current model and believe that there should be some discussion on the problems.

One of Ford's "core values" calls for 'think value not price' in dealing with suppliers. However, Ford Motor Company is still trying to find $3 billion in cost reductions by 2005 through its Ford North America Design Cost Sharing Program and some suppliers point out that they must still absorb higher steel costs, accept greater warranty and recall costs and continue price cuts.[58]

General Motors has also continued its push for price cuts in 2003. GM asked its suppliers to cut prices between 4 to 6 percent. The cuts GM sought varied by supplier with some as high as 10 percent or as low as 2 percent. GM also asked its suppliers to agree to price cuts on existing contracts before bidding on new work, develop Tier 2 and Tier 3 suppliers outside the United States in low-cost areas like Mexico, China, and South Korea, and to aggressively cut costs in their supply chain. Suppliers are expected to resist the notion that they should cut prices without quid pro quo.[59] Additionally, there are some concerns among suppliers about sourcing some

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[56] *Automotive News*, 10/28/02.

[57] *Automotive News*, 10/28/02.

[58] *Automotive News*, 9/2/02.

[59] *Automotive News*, 10/7/02.

parts from Chinese and South Korean suppliers. Chief among them are quality problems with some parts, especially steel for class-A surfaces, like vehicle interiors.[60]

Attempting to address their suppliers' concerns, the vehicle assemblers, Ford and GM, are trying more collaborative approaches with suppliers to cut costs. In the fall of 2002, Ford created Team Value Management to pursue this approach. GM is also working with a select group of suppliers in a more collaborative effort to develop plans to cut the cost of parts by 20 percent over three years.[61] In a long-term approach, suppliers have proposed ideas that would allow them to earn credit for tomorrow's savings. Some suppliers continue to be skeptical of vehicle assemblers' demands for price or cost cuts. Cost cuts are more desirable because suppliers are asked to find ways to cut costs and share the savings with the assemblers. On the other hand, price cuts come directly from supplier profits.

To keep costs down, many suppliers do have extensive overseas plant operations. Most of these operations are in relatively low-cost areas, like Asia, Eastern Europe, and Latin America/Mexico. These suppliers are also subject to lower levels of unionization. This pattern may be changing. Some large suppliers, like Delphi and Visteon, have nearly 100 percent unionized workforce, placing them at a possible competitive disadvantage to other suppliers.[62]

U.S. auto parts suppliers are also turning to foreign automakers for business in response to price cutting demands from the Big 3. Japanese and European automakers have experienced increases in U.S. market share at the expense of the Big 3, which has declined from 72.1 percent in 1992 to 61.5 percent in 2002.[63] Industry analysts argue that as more U.S. suppliers land contracts with foreign-owned automakers, U.S. automakers may fall behind in innovation and that could cause further loss of market share (table 22).[64] Foreign automakers tend to build more collaborative relationships with their suppliers and allow suppliers to benefit from innovations.

Tier 1 supplier, Visteon, is trying a "pay-to-play" approach with its suppliers. Under the plan, suppliers would pre-pay to Visteon a portion of the savings from lower-priced, long-term contracts. As part of Visteon's effort to consolidate its suppliers, reducing its supplier base from 2,500 to 500, Visteon started Suppliers and Visteon Excel Program, known as SAVE, in 2002. SAVE was designed as a collaborative program to give Visteon's suppliers a portion of any

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[60] *Automotive News*, 3/17/03.

[61] *Automotive News,* 3/17/03.

[62] *Autoparts Report*, 10/18/02.

[63] *Autoparts Report*, 11/19/02.

[64] *Automotive News*, 1/13/03.

savings the suppliers can come up with through design, material, or manufacturing improvements.[65] The pre-payment would be at least 10 percent of the first year's contract.[66] Visteon is not the first to consider a pre-payment program, GM considered the program in the past, but backed off when suppliers balked at the suggestion.

New business model approaches and ideas have been sought by examining supplier park systems, which are common in Europe, and Japanese supplier relations.

The appeal of supplier parks is that it puts parts suppliers in or next to assembly plants, significantly shortening the response time of suppliers, shortening lead time, saving money on shipping parts, and lessening the chance of disruptions. Ford has the first North American automotive supplier park under development in the Chicago area. It will have 10 Tier 1 suppliers within half a mile from a sedan assembly plant.

For suppliers that produce complex modules and require just-in-time delivery, there are potential benefits in being part of a supplier park. For some other suppliers, however, it makes no sense to spend money on building a plant for just one customer or on equipment to turn out parts which are easy to ship. Suppliers need to consider the costs and benefits of being part of a supplier park to service just one customer. Supplier parks also require commitments from both suppliers and assemblers. Labor unions are also wary of supplier parks because many smaller suppliers do not have union contracts. Being in a supplier park could drive up labor costs of smaller suppliers whose workers would be working beside union members.

The use of modules started in Europe with Volkswagen. Modules allow suppliers to design and develop large portions of vehicles, while automakers focus on overall design and assembly. Because of just-in-time production, modules are ideal for supplier parks. Labor unions argue that modules would take away jobs from union workers at vehicle assemblers as a form of outsourcing and would give the automaker less control over design and quality, increase logistical complexity and potentially add to warranty costs.

Conclusions

The automotive parts industry can expect a slight decline in production and in trade again in 2003 because of pessimistic economic outlooks and projected lower vehicle production and sales. The industry should also expect that the Big 3 will continue to demand price or cost cuts as they attempt to regain lost market share. On the other hand, the automotive aftermarket can

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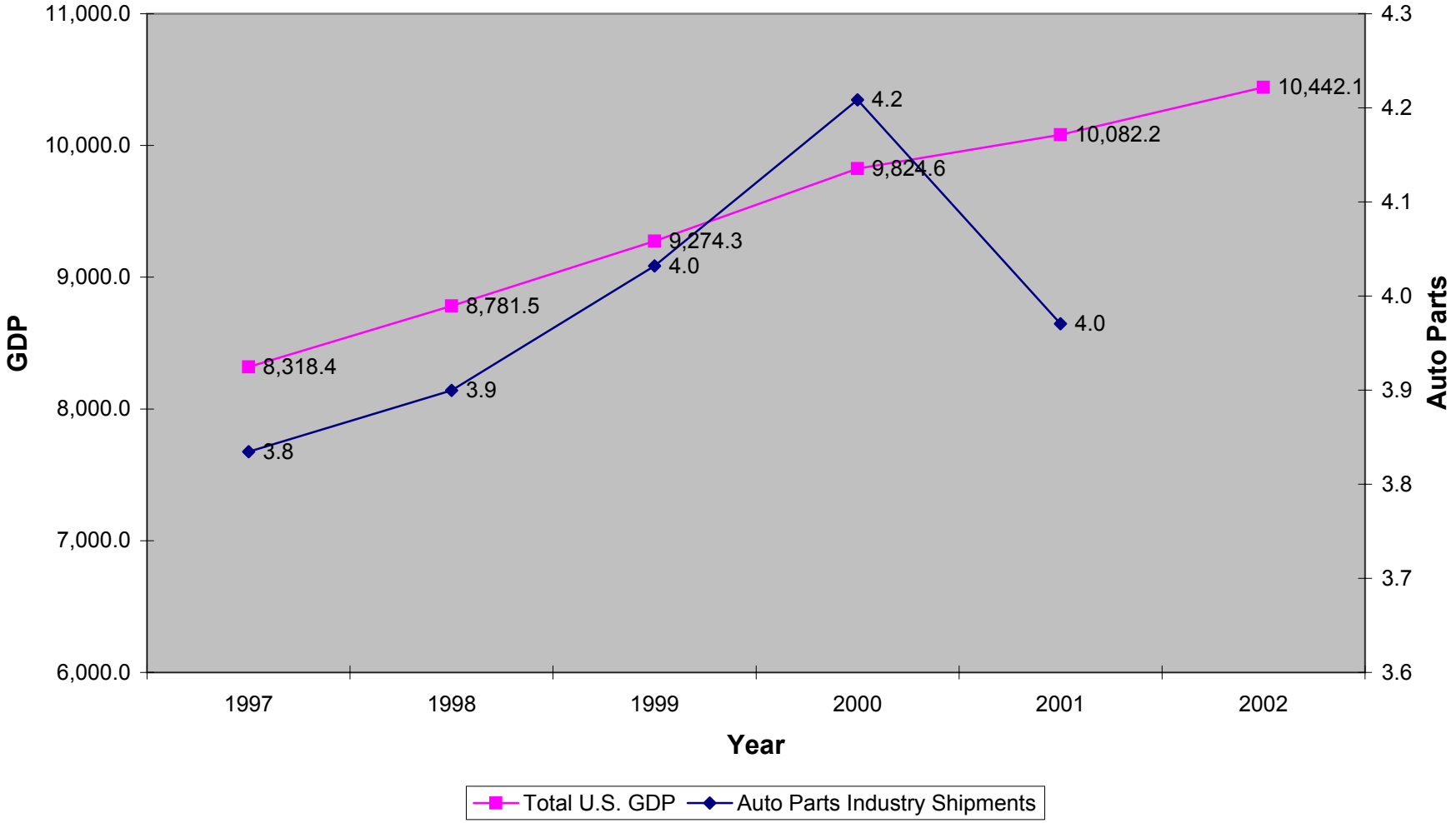
[65] *Automotive News,* 3/17/03.

[66] *Automotive News,* 2/24/03.

expect to see a slight increase in sales in 2003 as older vehicles start needing maintenance and repairs to keep them on the road.

Automakers and suppliers will experiment with innovative and alternate business models to reduce the tension and financial pressure. Despite these experiments, it is likely that a number of auto parts suppliers will leave the market in 2003 because of price and cost pressures from automakers, steel companies, and upstream suppliers.

Chart 1
Total GDP and Automotive Parts Industry Shipments, 1997-2002
$Billions



Source: Bureau of Economic Analysis, U.S. Department of Commerce and U.S. Bureau of the Census, *Annual Survey of Manufacturers* .

Table 1

Statistics for All U.S. Manufacturing Establishments

	1997	Chg*	1998	Chg*	1999	Chg*	2000	Chg*	2001	Chg*
All Employees	16,805,127		16,944,977	0.8%	16,685,639	-1.5%	16,651,904	-0.2%	15,879,477	-4.6%
Employee Payroll ($1,000)	569,808,845		586,957,735	3.0%	601,472,998	2.5%	617,211,426	2.6%	593,050,590	-3.9%
Production Workers	12,065,257		12,189,519	1.0%	11,977,196	-1.7%	11,943,646	-0.3%	11,235,111	-5.9%
Production Worker Hours (1,000)	24,183,271		24,582,584	1.7%	24,209,596	-1.5%	23,954,395	-1.1%	22,346,746	-6.7%
Production Worker Wages ($1,000)	338,267,197		348,953,570	3.2%	355,790,664	2.0%	363,380,819	2.1%	342,990,489	-5.6%
Value of Industry Shipments ($1,000)**	3,834,700,920		3,899,809,755	1.7%	4,031,884,590	3.4%	4,208,582,047	4.4%	3,970,499,812	-5.7%

Source: *Annual Survey of Manufacturers, 2001* , released February 2003 by U.S. Department of Commerce, Bureau of the Census. * = From Previous Year

** = Industry Shipments are products shipped by industry establishments.

Table 2

Statistics for U.S. Motor Vehicle Parts Manufacturing, NAICS 336211 and 3363

	1997	Chg*	1998	Chg*	1999	Chg*	2000	Chg*	2001	Chg*
All Employees	822,686		832,870	1.2%	842,344	1.1%	846,419	0.5%	777,774	-8.1%
Employee Payroll ($1,000)	32,186,047		32,649,966	1.4%	35,980,174	10.2%	36,740,593	2.1%	32,825,802	-10.7%
Production Workers	662,455		669,341	1.0%	680,104	1.6%	676,449	-0.5%	615,547	-9.0%
Production Worker Hours (1,000)	1,371,296		1,386,337	1.1%	1,431,002	3.2%	1,389,253	-2.9%	1,228,624	-11.6%
Production Worker Wages ($1,000)	23,997,423		24,086,605	0.4%	27,035,565	12.2%	27,221,020	0.7%	23,682,724	-13.0%
Value of Industry Shipments ($1,000)**	181,507,106		187,458,951	3.3%	206,622,875	10.2%	208,179,966	0.8%	190,711,569	-8.4%
Value of Product Shipments ($1,000)***	179,709,666		186,966,036	4.0%	205,669,893	10.0%	206,443,783	0.4%	188,487,002	-8.7%

Source: *Annual Survey of Manufacturers, 2001* , released February 2003 by U.S. Department of Commerce, Bureau of the Census. * = From Previous Year

** = Industry Shipments are products shipped by industry establishments. *** = Product Shipments are all products regardless of industry establishment.

Table 3

U.S. Exports of Automotive Parts ($millions)

	1997	%Chg	1998	%Chg	1999	%Chg	2000	%Chg	2001	%Chg	2002	%Chg
Parts Exports	41,119		46,807	13.8%	49,901	6.6%	53,720	7.7%	49,794	-7.3%	50,087	0.6%
U.S. Merchandise Exports	689,182		682,138	-1.0%	695,797	2.0%	781,918	12.4%	729,100	-6.8%	693,302	-4.9%
% Share	6.0%		6.9%		7.2%		6.9%		6.8%		7.2%	

Source: U.S. Census Bureau

Table 4

Total World Original Equipment Parts Market

	1997	% Chang	1998	% Chang	1999	% Chang	2000	% Chang	2001	% Change
Parts Exports ($millions)	635,822		679,088	6.8%	811,729	19.5%	790,320	-2.6%	740,195	-6.3%
Total OE Parts per Vehicle ($)	10,966		12,613	15.0%	14,053	11.4%	13,242	-5.8%	12,892	-2.6%

Source: OESA Industry Review 2002

Table 5

Automotive Parts Employment (thousands)

SIC Code		1997	% Change	1998	% Change	1999	% Change	2000	% Change	2001	% Change	2002	% Change
3465	Automotive Stampings	114.5		115.6	0.96%	122.1	5.62%	122.7	0.49%	113.0	-7.91%	107.6	-4.78%
3592	Carburetors, Pistons, Rings, and Valves	23.0		23.7	3.04%	24.2	2.11%	24.0	-0.83%	21.9	-8.75%	20.0	-8.68%
3694	Electrical Equipment for Internal Combustion Engines	65.0		66.8	2.77%	69.5	4.04%	69.3	-0.29%	59.7	-13.85%	50.5	-15.41%
3711	Motor Vehicle and Car Bodies	347.8		345.0	-0.81%	352.9	2.29%	352.8	-0.03%	341.3	-3.26%	331.1	-2.99%
3713	Truck and Bus Bodies	40.8		43.3	6.13%	47.7	10.16%	49.1	2.94%	46.6	-5.09%	45.3	-2.79%
3714	Motor Vehicle Parts and Accessories	544.3		547.3	0.55%	551.9	0.84%	552.2	0.05%	511.3	-7.41%	489.3	-4.30%
3715	Truck Trailers	33.5		39.6	18.21%	43.3	9.34%	41.0	-5.31%	30.4	-25.85%	26.1	-14.14%
Total*		**746.8**		**753.4**	**0.88%**	**767.7**	**1.90%**	**768.2**	**0.07%**	**705.9**	**-8.11%**	**667.4**	**-5.45%**

Source: U.S. Bureau of Labor Statistics, U.S. Department of Labor. *Total of 3714, 3465, 3694, 3592

Table 6

Employment in the U.S. Automotive Parts Industry, Thousands

NAICS	1997	% Change	1998	% Change	1999	% Change	2000	% Change	2001	% Change	2002	% Change
Bodies and Body Parts												
336211	42,773		43,306	1.2%	43,170	-0.3%	43,844	1.6%	41,771	-4.7%		
336360	47,885		48,898	2.1%	55,455	13.4%	58,028	4.6%	52,670	-9.2%		
336370	126,668		123,214	-2.7%	118,695	-3.7%	117,012	-1.4%	112,488	-3.9%		
Total	217,326		215,418	-0.9%	217,320	0.9%	218,884	0.7%	206,929	-5.5%		
Chassis and Drivetrain Parts												
336330	48,676		47,682	-2.0%	48,747	2.2%	50,972	4.6%	47,015	-7.8%		
336340	43,146		45,807	6.2%	44,638	-2.6%	44,331	-0.7%	38,736	-12.6%		
336350	100,605		102,538	1.9%	111,338	8.6%	112,244	0.8%	98,753	-12.0%		
Total	192,427		196,027	1.9%	204,723	4.4%	207,547	1.4%	184,504	-11.1%		
Electrical and Electronic Parts												
336321	16,624		15,660	-5.8%	17,233	10.0%	15,055	-12.6%	14,665	-2.6%		
336322	97,572		99,295	1.8%	100,345	1.1%	102,564	2.2%	94,812	-7.6%		
336391	21,522		21,310	-1.0%	21,477	0.8%	20,393	-5.0%	19,594	-3.9%		
Total	135,718		136,265	0.4%	139,055	2.0%	138,012	-0.8%	129,071	-6.5%		
Engines and Engine Parts												
336311	17,241		17,706	2.7%	17,341	-2.1%	17,748	2.3%	16,656	-6.2%		
336312	80,582		80,887	0.4%	80,209	-0.8%	78,600	-2.0%	71,979	-8.4%		
Total	97,823		98,593	0.8%	97,550	-1.1%	96,348	-1.2%	88,635	-8.0%		
Miscellaneous Automotive Parts												
336399	179,392		186,567	4.0%	183,696	-1.5%	185,628	1.1%	168,635	-9.2%		
Total	179,392		186,567	4.0%	183,696	-1.5%	185,628	1.1%	168,635	-9.2%		

Source: U.S. Department of Commerce, *Annual Survey of Manufacturers 2002* .

Table 7

AAIA and MEMA estimates of U.S. Automotive Aftermarket ($Billions)														
	1997	%Change	1998	%Change	1999	%Change	2000	%Change	2001	%Change	2002	%Change	2003	%Change
Total Aftermarket* (AAIA)	143.2		151.0	5.4%	161.2	6.8%	170.6	5.8%	178.8	4.8%	185.8***	3.9%		
Automotive Aftermarket** (MEMA)							194.7		201.3	3.4%	208.1	3.4%	218.5***	5.0%

*Source: Automotive Aftermarket Industry Association Market Factbook 2002/2003. *Includes Service Repair Market, Tires, and Do-it-Yourself Market.

**Source: Motor and Equipment Manufacturers Association in*Focus*, Fall 2002.

***Forecast.

Table 8

Automotive Specialty Equipment Sales and Light Truck Specialty Equipment Market Segment Sales* ($Billions)												
	1997	%Chg	1998	%Chg	1999	%Chg	2000	%Chg	2001	%Chg	2002	%Chg
Total Specialty Eq. Sales	6.85		7.47	9.1%	8.17	9.4%	8.69	0.06	9.02	3.8%	NA	
Lt Truck Specialty Equip	2.0		2.2	11.1%	2.5	11.3%	2.7	9.8%	2.9	5.9%	NA	#VALUE!

Sources: Nov. 2002 SEMA News. **At Manufacturer level*

Table 9

Top 10 OE Suppliers for North America

	2000	NA Sales ($Millions)	2001	NA Sales ($Millions)	2002	NA Sales ($Millions)
	Company		**Company**		**Company**	
1	Delphi Corp	21,449	Delphi Corp.	18,867	Delphi Corp	19,656
2	Visteon Corp	15,041	Visteon Corp	11,736	Visteon Corp.	12,168
3	Lear Corp.	8,601	Lear Corp	8,858	Lear Corp.	9,504
4	Johnson Controls Inc.	8,534	Johnson Controls Inc	7,353	Johnson Controls Inc.	7,687
5	Dana Corp.	7,100	Magna Intl Inc	7,140	Magna Int'l Inc.	7,650
6	Magna Intl Inc.	6,868	Dana Corp	5,250	Dana Corp.	5,340
7	Robert Bosch Corp.	5,874	TRW Automotive	4,992	TRW Automotive	4,950
8	TRW Automotive	5,202	Robert Bosch Corp.	4,120	Robert Bosch Corp.	4,390
9	ArvinMeritor Inc.	4,154	Denso Intl America Inc.	3,689	Denso Int'l America Inc.	3,769
10	Denso Intl America Inc.	3,803	ArvinMeritor Inc	2,045	American Axle & Manu.*	3,341
Top 10 Total		86,626		74,050		78,455
Top 150 Total		189,400		166,400		182,100

Source: Automotive News. *calculated estimate. **American Axle and Manufacturing Holdings Inc.

Table 10

Top 10 Global OEM Suppliers

	1999	Global OEM Sales	2000	Global OEM Sales	2001	Global OEM Sales
	Company	($Millions)	**Company**	($Millions)	**Company**	($Millions)
1	Delphi Automotive Syster	27,259	Delphi Corp	16,480	Delphi Corp.	24,188
2	Visteon Corp.	18,481	Visteon Corp	18,569	Robert Bosch GmbH	18,000
3	Robert Bosch GmbH	16,700	Robert Bosch GmbH	17,800	Visteon Corp.	16,945
4	Denso Corp.	12,575	Denso Corp.	16,392	Denso Corp.	16,250
5	Lear Corp.	12,429	Lear Corp.	14,073	Lear Corp.	13,625
6	Johnson Controls Inc.	11,207	Johnson Controls Inc.	12,738	Johnson Controls In.	13,620
7	TRW Inc.	11,000	TRW Automotive	10,200	Magna Int'l Inc.	10,500
8	Dana Corp.	10,133	Magna Int'l Inc.	10,100	TRW Automotive	9,600
9	Magna Int'l Inc.	9,000	Dana Corp.	9,467	Faurecia	8,600
10	Valeo SA	7,754	Valeo SA	6,959	Aisin Seiki Co. Ltd.	8,460
Top 10 Total		136,538		132,778		139,788
Top 100 Total				350,600		347,900

Source: Automotive News. *calculated estimate. **American Axle and Manufacturing Holdings Inc.

Table11

World Shipments of the 20 Largest Exporters of Automotive Parts ($Thousands)

	1996		1997		1998		1999		2000	
	All Reporters	**243,971,210**	**All Reporters**	**238,119,251**	**All Reporters**	**248,204,353**	**All Reporters**	**260,178,491**	**All Reporters**	**270,554,665**
1	United States	39,310,128	United States	45,422,437	United States	45,969,176	United States	49,045,573	United States	53,084,547
2	Japan	35,742,888	Germany	32,066,893	Germany	35,684,732	Germany	35,885,597	Japan	34,708,802
3	Germany	32,380,504	Japan	31,669,942	Japan	27,034,698	Japan	30,450,081	Germany	34,661,226
4	France	18,914,635	France	18,327,490	France	20,288,512	France	21,274,075	France	20,800,667
5	Spain	17,701,205	Canada	13,935,188	Canada	14,604,056	Canada	16,889,599	Mexico	18,222,065
6	Canada	12,709,582	U.K.	13,356,423	U.K.	13,469,345	Mexico	16,284,836	Canada	17,843,591
7	U.K.	12,046,227	Mexico	12,207,034	Mexico	13,466,153	U.K.	12,515,727	United Kingdom	13,113,109
8	Sweden	11,960,141	Italy	11,588,202	Italy	12,300,862	Italy	12,077,119	Italy	11,406,672
9	Italy	11,419,360	Spain	8,776,437	Spain	9,689,110	Spain	10,116,878	Spain	9,858,980
10	Mexico	10,167,765	Belgium	5,936,341	Sweden	6,681,898	Belgium	6,683,512	Sweden	7,742,396
11	Belgium	5,863,034	Sweden	5,709,257	Belgium	6,566,300	Austria	5,351,560	Belgium	6,352,189
12	Austria	5,070,141	Austria	4,736,696	Austria	4,941,992	Sweden	5,095,612	Austria	5,381,844
13	Brazil	3,625,820	Brazil	3,900,347	Hungary	3,999,265	Hungary	4,213,126	Hungary	4,302,482
14	Netherlands	3,257,404	Korea	3,508,229	Brazil	3,872,757	Korea	3,444,035	China	3,764,875
15	Korea	2,747,684	Netherlands	3,115,151	Korea	3,218,206	Brazil	3,416,228	Korea	3,649,148
16	Portugal	1,945,095	Hungary	2,465,069	Netherlands	3,030,699	Netherlands	3,182,704	Brazil	3,612,011
17	Singapore	1,791,261	China	2,069,435	Czech Rep.	2,613,137	Czech Rep.	2,955,925	Czech Republic	3,315,560
18	China	1,781,417	Czech Rep.	1,763,442	China	2,266,397	China	2,757,218	Netherlands	2,830,141
19	Switzerland	1,550,602	Singapore	1,613,383	Portugal	1,780,452	Portugal	2,117,565	Poland	2,756,897
20	Czech Rep.	1,395,510	Portugal	1,498,941	Singapore	1,165,862	Poland	1,390,154	Hong Kong	1,815,570

Source: United Nations data, using OAA Product Groups. Total FOB Exports, Thousands of Dollars. Ranked Annually, of all Countries Reporting in each Year.

Table 12

U.S. AUTOMOTIVE PARTS EXPORTS, 1997 - 2002

In millions of dollars

Region/Coun	1997	1998	%chg	1999	%Chg	2000	%Chg	2001	% Chg	2002	% Chg
WORLD	**46,643**	**46,807**	**0.4%**	**49,901**	**6.6%**	**53,720**	**7.7%**	**49,794**	**-7.3%**	**50,087**	**0.6%**
ASIA and the PACIFIC											
Select ASEAN											
Indonesia	73	38	-47.9%	27	-29.2%	34	24.5%	21	-38.9%	22	7.1%
Malaysia	61	22	-64.3%	58	164.5%	35	-39.6%	26	-24.3%	29	8.7%
Philippines	83	42	-49.9%	55	32.1%	53	-3.5%	29	-45.6%	59	103.9%
Singapore	267	134	-49.8%	150	11.7%	135	-10.2%	143	6.3%	141	-1.1%
Thailand	128	119	-7.0%	127	6.8%	143	12.1%	85	-40.1%	86	0.3%
Total **ASEAN**	**623**	**360**	**-42.2%**	**419**	**16.5%**	**402**	**-4.2%**	**309**	**-23.0%**	**343**	**10.9%**
Chinese Economic Area											
China	311	132	-57.5%	251	90.1%	225	-10.4%	258	14.6%	344	33.5%
Hong Kong	434	190	-56.2%	114	-40.2%	91	-19.6%	82	-10.1%	75	-9.3%
Taiwan	137	212	54.9%	84	-60.4%	79	-6.1%	75	-5.0%	77	2.0%
Total **Chines**	**882**	**535**	**-39.4%**	**449**	**-16.1%**	**395**	**-12.0%**	**415**	**5.0%**	**495**	**19.3%**
Select Other Asia and the Pacific											
Australia	652	590	-9.4%	564	-4.4%	700	24.0%	577	-17.6%	615	6.6%
India	44	42	-4.4%	46	9.3%	41	-11.3%	38	-7.6%	39	4.9%
Japan	**2,312**	**2,139**	**-7.50%**	**1,893**	**-11.5%**	**2,217**	**17.1%**	**2,008**	**-9.4%**	**2,285**	**13.8%**
Korea	661	364	-44.9%	597	63.9%	454	-24.1%	369	-18.6%	332	-10.1%
EUROPE											
Select European Union											
Austria	757	1,086	43.4%	1,164	7.2%	1,056	-9.3%	1,117	5.7%	944	-15.5%
Belgium	536	508	-5.3%	348	-31.4%	385	10.7%	348	-9.7%	393	13.0%
France	296	268	-9.5%	281	4.8%	366	30.2%	407	11.1%	355	-12.8%
Germany	1,006	1,019	1.3%	950	-6.8%	974	2.6%	1,116	14.6%	941	-15.7%
Italy	157	128	-18.9%	112	-12.5%	135	21.1%	158	16.5%	122	-22.6%
Netherlands	251	185	-26.3%	201	8.5%	322	60.4%	326	1.0%	317	-2.6%
Sweden	155	207	33.9%	204	-1.6%	143	-29.9%	127	-11.3%	154	21.6%
United Kingd	752	844	12.2%	1,191	41.1%	1,241	4.2%	1,236	-0.4%	1,072	-13.3%
Total **Europea**	**4,121**	**4,434**	**7.6%**	**4,609**	**3.9%**	**4,848**	**5.2%**	**5,048**	**4.1%**	**4,492**	**-11.0%**
Select Other Europe											
Czech Repub	19	16	-15.2%	20	25.4%	14	-32.3%	8	-43.5%	11	45.6%
Hungary	54	53	-3.2%	59	12.9%	33	-45.1%	20	-38.1%	52	158.2%
Poland	12	20	73.4%	23	16.2%	13	-44.3%	14	10.2%	15	3.1%
Russia	66	28	-57.7%	16	-41.8%	15	-5.4%	27	73.8%	17	-36.2%
Total **Other E**	**151**	**117**	**-22.7%**	**119**	**2.1%**	**75**	**-37.3%**	**69**	**-7.6%**	**95**	**38.0%**
WESTERN HEMISPHERE											
Select Andean Community											
Colombia	179	155	-13.5%	70	-54.6%	81	16.0%	76	-7.0%	69	-9.4%
Peru	61	52	-14.4%	37	-28.0%	24	-36.8%	33	37.9%	31	-5.4%
Venezuela**	677	518	-23.5%	390	-24.6%	537	37.5%	595	10.9%	310	-47.9%
Total **Andean**	**970**	**778**	**-19.8%**	**520**	**-33.2%**	**675**	**29.8%**	**778**	**15.3%**	**461**	**-40.7%**
Select Central America											
Total **Central**	**173**	**191**	**10.4%**	**181**	**-5.2%**	**160**	**-11.4%**	**142**	**-11.1%**	**151**	**5.7%**
Select MERCOSUR											
Argentina	297	361	21.5%	188	-47.9%	225	20.0%	112	-50.2%	37	-66.8%
Brazil**	613	954	55.7%	454	-52.4%	401	-11.7%	444	10.8%	454	2.1%
Chile	113	128	12.9%	94	-26.4%	92	-2.6%	79	-13.5%	102	28.0%
Paraguay	26	16	-36.0%	22	33.2%	10	-54.0%	5	-49.5%	2	-62.2%
Uruguay	10	12	25.7%	8	-33.9%	8	-6.5%	6	-28.3%	3	-38.3%
Total **MERCO**	**1,059**	**1,472**	**39.0%**	**767**	**-47.9%**	**736**	**-3.9%**	**647**	**-12.2%**	**598**	**-7.5%**
NAFTA											
Canada	24,387	25,298	3.7%	29,643	17.2%	29,601	-0.1%	26,372	-10.9%	27,968	6.1%
Mexico*	9,582	9,502	-0.8%	9,271	-2.4%	12,559	35.5%	12,010	-4.4%	11,326	-5.7%
Total **NAFTA**	**33,969**	**34,799**	**2.4%**	**38,915**	**11.8%**	**42,161**	**8.3%**	**38,381**	**-9.0%**	**39,293**	**2.4%**
ALL OTHERS	**1,026**	**985**	**-4.0%**	**823**	**-16.5%**	**858**	**4.3%**	**1,012**	**18.0%**	**887**	**-12.3%**

Exports, f.a.s.

Source: U.S. Census Bureau

Prepared by: Forrest Nielsen, 202-482-1418. Feb. 25, 2003.

Notes:

**1998 and 1999 data include transshipments to Brazil and Venezuela through St. Vincent and Grenadines.

1) The ASEAN region comprises Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam.

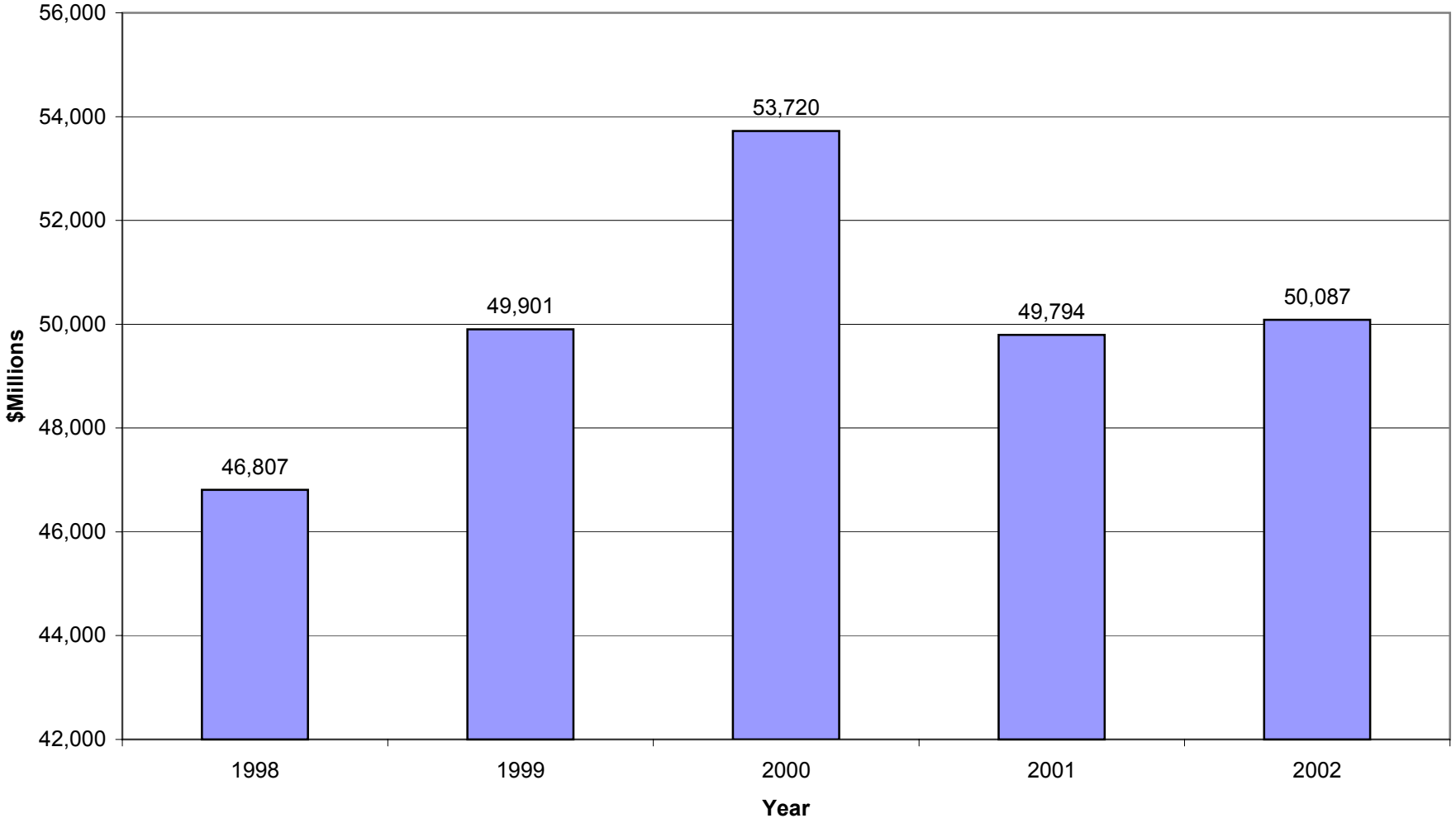
2) The European Union comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom. As of 1995, Austria, Finland, and Sweden are included in the total.

3) The Andean Community comprises Bolivia, Colombia, Ecuador, Peru, and Venezuela.

4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Panama.

5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay.

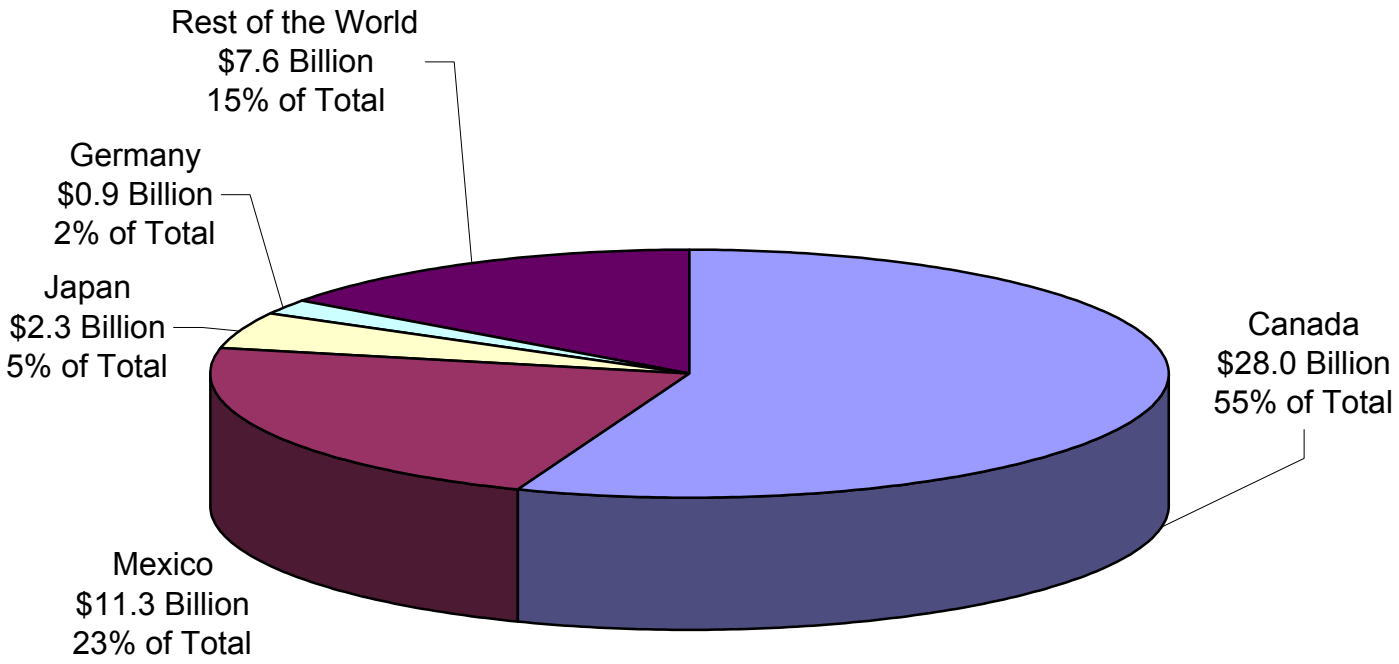
Chart 2
U.S. Automotive Parts Exports, 1998-2002



Source: U.S. Department of Commerce, Bureau of the Census.
2002 data is annualized using Year-to-Date (Jan.-Sept. 2002) data.

Chart 3
U.S. Automotive Parts Exports to Major Markets, 2002

Total: $50.1 Billion



Source: U.S. Bureau of the Census, using OAA HTS Selections.

Table 13

U.S. AUTOMOTIVE PARTS IMPORTS, 1997 - 2002

In millions of dollars

Region/Coun	1997	1998	% Chg	1999	%Chg	2000	%Chg	2001	%Chg	2002	%Chg
WORLD	**50,802**	**54,365**	**7.01%**	**61,619**	**13.3%**	**66,959**	**8.7%**	**62,726**	**-6.3%**	**69,089**	**10.1%**
ASIA and the PACIFIC											
Select ASEAN											
Indonesia	178	204	14.9%	264	29.2%	269	2.2%	282	4.5%	320	13.7%
Malaysia	231	230	-0.7%	275	19.9%	286	4.0%	244	-14.7%	263	7.4%
Philippines	299	267	-10.5%	324	21.2%	408	26.2%	360	-11.8%	349	-3.1%
Singapore	219	192	-12.3%	178	-7.3%	156	-12.4%	147	-5.9%	134	-8.8%
Thailand	345	368	6.6%	421	14.6%	415	-1.6%	411	-0.9%	546	32.7%
Total **ASEAN**	**1,271**	**1,260**	**-0.9%**	**1,462**	**16.0%**	**1,535**	**5.0%**	**1,444**	**-5.9%**	**1,619**	**12.1%**
Chinese Economic Area											
China	795	1,037	30.4%	1,284	23.8%	1,635	27.4%	1,758	7.5%	2,242	27.5%
Hong Kong	46	55	18.1%	61	11.3%	57	-7.1%	41	-27.6%	51	25.1%
Taiwan	851	931	9.5%	1,062	14.0%	1,033	-2.7%	1,085	5.0%	1,294	19.3%
Total **Chines**	**1,692**	**2,023**	**19.5%**	**2,407**	**19.0%**	**2,725**	**13.2%**	**2,885**	**5.9%**	**3,587**	**24.4%**
Select Other Asia and the Pacific											
Australia	150	179	19.6%	248	38.7%	251	1.1%	186	-25.9%	198	6.7%
India	134	162	21.0%	161	-0.6%	190	17.9%	179	-5.7%	202	12.8%
Japan	**11,855**	**11,878**	**0.19%**	**12,775**	**7.6%**	**14,535**	**13.8%**	**13,150**	**-9.5%**	**13,498**	**2.6%**
Korea	664	762	14.7%	919	20.7%	1,082	17.6%	1,122	3.8%	1,383	23.2%
EUROPE											
Select European Union											
Austria	261	238	-8.9%	211	-11.1%	230	8.7%	201	-12.6%	222	10.4%
Belgium	88	83	-6.5%	90	9.3%	97	7.6%	82	-15.4%	89	8.3%
France	961	1,094	13.8%	1,303	19.1%	1,133	-13.0%	1,165	2.8%	1,197	2.7%
Germany	2,626	3,114	18.6%	3,451	10.8%	3,874	12.3%	3,746	-3.3%	4,336	15.7%
Italy	400	432	7.9%	447	3.5%	474	5.9%	525	10.8%	652	24.2%
Netherlands	60	59	-1.8%	60	1.8%	60	0.3%	66	9.0%	71	8.3%
Spain	277	275	-0.7%	346	25.9%	301	-13.2%	269	-10.5%	349	29.6%
Sweden	319	319	0.1%	292	-8.5%	241	-17.6%	188	-22.0%	212	12.6%
United Kingd	809	1,031	27.5%	1,118	8.5%	1,190	6.4%	976	-18.0%	1,106	13.3%
Total **Europea**	**5,889**	**6,742**	**14.5%**	**7,451**	**10.5%**	**7,716**	**3.5%**	**7,375**	**-4.4%**	**8,425**	**14.2%**
Select Other Europe											
Czech Repul	17	29	65.5%	53	86.6%	60	12.4%	86	43.0%	125	45.8%
Hungary	111	120	8.6%	95	-21.0%	97	1.8%	100	3.0%	180	80.3%
Poland	14	19	29.9%	19	4.3%	42	115.2%	43	2.1%	57	32.0%
Russia	6	4	-34.6%	4	6.5%	4	-2.6%	2	-62.3%	2	52.0%
Total **Other E**	**149**	**172**	**15.4%**	**172**	**0.3%**	**203**	**17.8%**	**230**	**13.2%**	**364**	**58.2%**
WESTERN HEMISPHERE											
Select Andean Community											
Colombia	6	6	-5.5%	7	10.3%	8	22.9%	10	19.7%	13	29.0%
Peru	3	4	19.5%	5	27.5%	4	-6.0%	10	118.2%	12	21.1%
Venezuela	158	184	16.1%	207	12.7%	235	13.6%	159	-32.5%	172	8.4%
Total **Andea**	**168**	**194**	15.5%	**219**	**13.0%**	**249**	**13.4%**	**179**	**-27.8%**	**199**	**10.9%**
Select Central America											
Total Central	**25**	**28**	**10.9%**	**61**	**120.3%**	**91**	**49.7%**	**69**	**-23.8%**	**105**	**51.1%**
Select MERCOSUR											
Argentina	43	72	65.8%	131	83.3%	177	34.6%	233	31.5%	223	-4.1%
Brazil	1,233	1,240	0.6%	1,360	9.6%	1,248	-8.2%	955	-23.5%	1,275	33.6%
Chile	16	24	50.4%	36	49.6%	42	14.7%	33	-21.2%	33	0.1%
Total **MERC**	**1,293**	**1,338**	3.5%	**1,529**	**14.3%**	**1,473**	**-3.7%**	**1,225**	**-16.8%**	**1,538**	**25.5%**
NAFTA											
Canada	13,834	14,712	6.4%	16,934	15.1%	17,634	4.1%	15,787	-10.5%	17,217	9.1%
Mexico	13,322	14,481	8.7%	16,768	15.8%	18,663	11.3%	18,180	-2.6%	20,069	10.4%
Total **NAFTA**	**27,155**	**29,193**	**7.5%**	**33,702**	**15.4%**	**36,297**	**7.7%**	**33,967**	**-6.4%**	**37,286**	**9.8%**
ALL OTHERS	**356**	**434**	**21.6%**	**512**	**18.1%**	**613**	**19.8%**	**714**	**16.5%**	**686**	**-4.0%**

Imports, customs value

Source: U.S. Census Bureau

Prepared by: Forrest Nielsen, 202-482-1418. Feb. 25, 2003

Notes:

1) The ASEAN region comprises Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam.

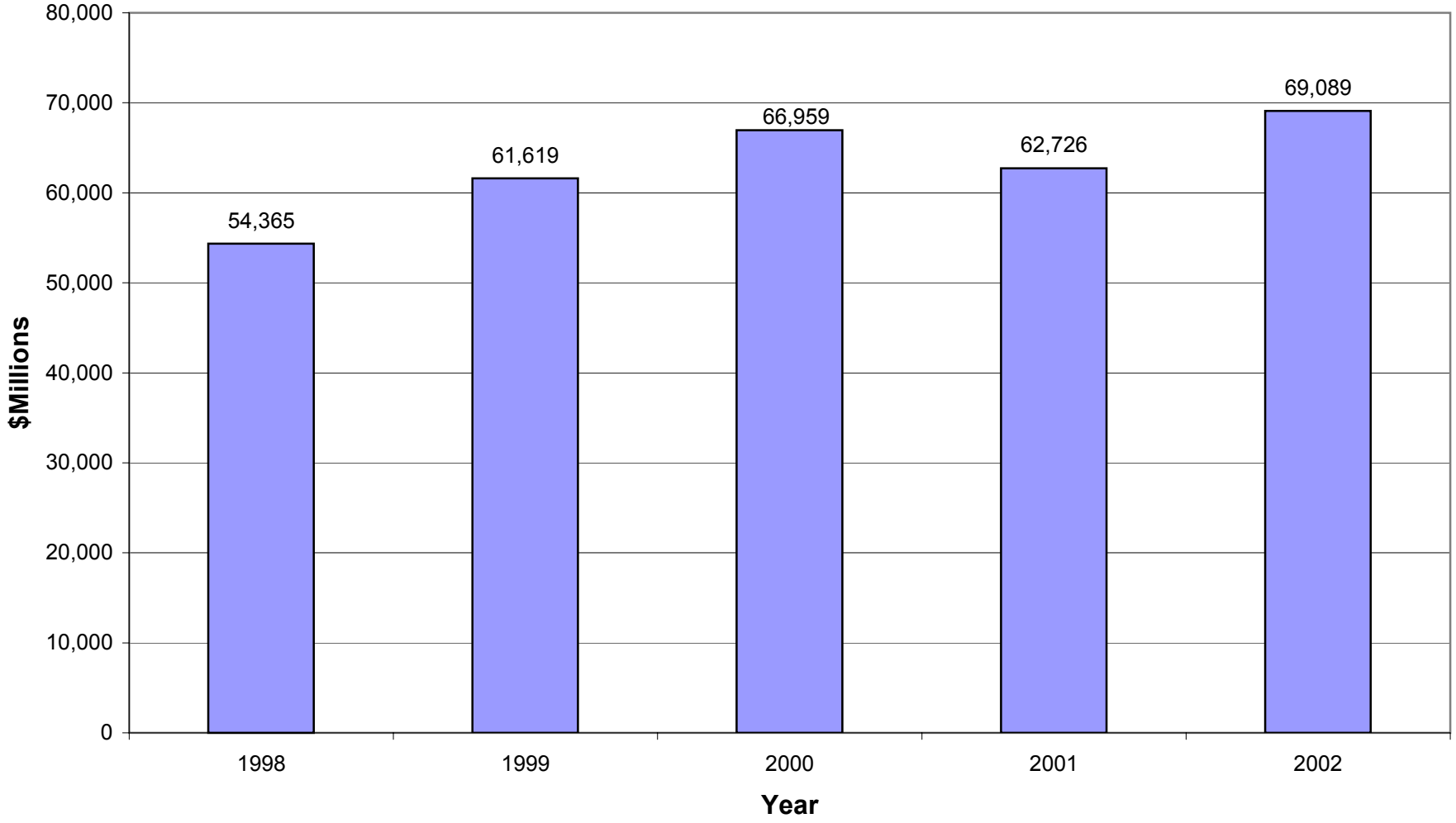
2) The European Union comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom. As of 1995, Austria, Finland, and Sweden are included in the total.

3) The Andean Community comprises Bolivia, Colombia, Ecuador, Peru, and Venezuela.

4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Panama.

5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay.

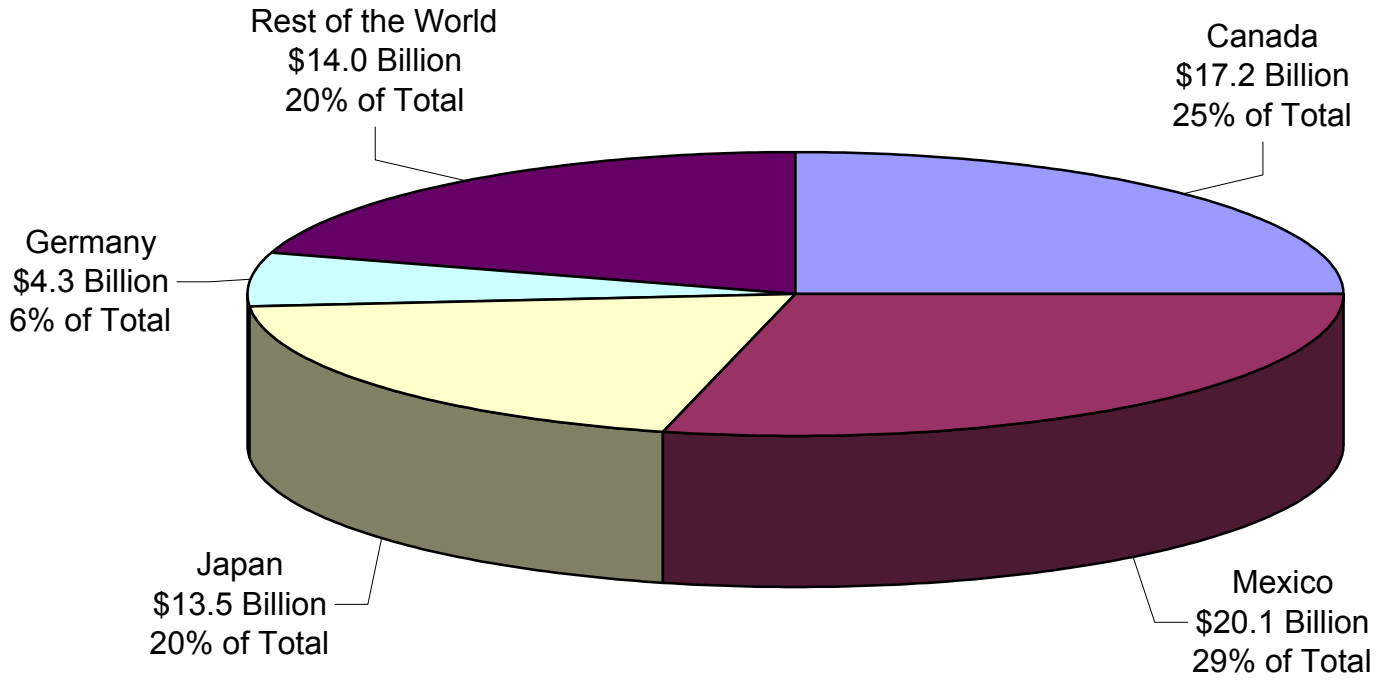
Chart 4
U.S. Automotive Parts Imports, 1998-2002



Source: U.S. Department of Commerce, Bureau of the Census.
2002 data is annualized using Year-to-Date (Jan.-Sept. 2002) data.

Chart 5
U.S. Automotive Parts Imports from Major Markets, 2002

Total: $69.1 Billion



Source: U.S. Bureau of the Census, using OAA HTS Selections.

Table 14

U.S. AUTOMOTIVE PARTS TRADE BALANCE, 1997 - 2002

In millions of dollars

Region/Coun	1997	1998	%Chg	1999	%Chg	2000	%Chg	2001	%Chg	2002	%Chg
WORLD	**-4158.93**	**-7557.973**	**81.7%**	**-11718.574**	**55.0%**	**-13238.529**	**13.0%**	**-12931.925**	**-2.3%**	**-19002.335**	**46.9%**
ASIA and the PACIFIC											
Select ASEAN											
Indonesia	-104.535	-165.923	58.7%	-236.645	42.6%	-235.805	-0.4%	-261.056	10.7%	-298.094	14.2%
Malaysia	-170.206	-207.905	22.1%	-217.573	4.7%	-251.336	15.5%	-217.898	-13.3%	-233.804	7.3%
Philippines	-215.348	-225.352	4.6%	-268.483	19.1%	-355.051	32.2%	-331.116	-6.7%	-289.785	-12.5%
Singapore	48.185	-57.606	-219.6%	-27.983	-51.4%	-21.202	-24.2%	-3.633	-82.9%	7.626	-309.9%
Thailand	-216.889	-248.526	14.6%	-294.166	18.4%	-272.178	-7.5%	-325.865	19.7%	-460.028	41.2%
Total ASEA	**-648.487**	**-900.427**	**38.9%**	**-1042.771**	**15.8%**	**-1133.105**	**8.7%**	**-1135.099**	**0.2%**	**-1276.048**	**12.4%**
Chinese Economic Area											
China	-484.546	-904.808	86.7%	-1033.063	14.2%	-1410.448	36.5%	-1500.869	6.4%	-1897.981	26.5%
Hong Kong	387.768	135.565	-65.0%	52.812	-61.0%	34.79	-34.1%	41.155	18.3%	23.232	-43.5%
Taiwan	-713.473	-718.972	0.8%	-977.68	36.0%	-954.32	-2.4%	-1010.066	5.8%	-1217.441	20.5%
Total Chine	**-810.251**	**-1488.215**	**83.7%**	**-1957.931**	**31.6%**	**-2329.978**	**19.0%**	**-2469.78**	**6.0%**	**-3092.19**	**25.2%**
Select Other Asia and the Pacific											
Australia	502.03	411.598	-18.0%	316.278	-23.2%	449.127	42.0%	390.992	-12.9%	416.496	6.5%
India	-90.095	-120.142	33.4%	-115.195	-4.1%	-149.318	29.6%	-141.501	-5.2%	-162.673	15.0%
Japan	**-9543.308**	**-9739.648**	**2.1%**	**-10882.58**	**11.7%**	**-12318.308**	**13.2%**	**-11141.374**	**-9.6%**	**-11212.864**	**0.6%**
Korea	-3.387	-397.537	11637.1%	-322.246	-18.9%	-627.968	94.9%	-753.223	19.9%	-1051.412	39.6%
EUROPE											
Select European Union											
Austria	496.396	848.477	70.9%	952.793	12.3%	826.401	-13.3%	915.65	10.8%	721.768	-21.2%
Belgium	447.598	425.12	-5.0%	257.854	-39.3%	288.322	11.8%	265.958	-7.8%	304.332	14.4%
France	-664.692	-825.797	24.2%	-1021.596	23.7%	-767.405	-24.9%	-758.712	-1.1%	-842.613	11.1%
Germany	-1620.021	-2094.822	29.3%	-2501.594	19.4%	-2900.435	15.9%	-2630.222	-9.3%	-3394.896	29.1%
Italy	-243.002	-304.3	25.2%	-335.515	10.3%	-338.422	0.9%	-367.064	8.5%	-529.626	44.3%
Netherlands	191.085	125.916	-34.1%	140.55	11.6%	261.746	86.2%	259.646	-0.8%	245.78	-5.3%
Sweden	-164.239	-112.17	-31.7%	-88.298	-21.3%	-97.917	10.9%	-61.177	-37.5%	-57.502	-6.0%
United Kingd	-56.336	-186.98	231.9%	72.224	-138.6%	51.284	-29.0%	259.797	406.6%	-34.168	-113.2%
Total Europe	**-1767.141**	**-2308.138**	**30.6%**	**-2842.804**	**23.2%**	**-2867.526**	**0.9%**	**-2326.69**	**-18.9%**	**-3932.163**	**69.0%**
Select Other Europe											
Czech Repu	1.741	-12.439	-814.5%	-33.075	165.9%	-46.197	39.7%	-77.919	68.7%	-113.629	45.8%
Hungary	-56.503	-67.795	20.0%	-35.739	-47.3%	-64.2	79.6%	-79.538	23.9%	-127.708	60.6%
Poland	-2.855	1.305	-145.7%	3.742	186.7%	-28.995	-874.9%	-28.57	-1.5%	-41.823	46.4%
Russia	59.707	23.78	-60.2%	11.833	-50.2%	11.064	-6.5%	25.128	127.1%	14.595	-41.9%
Total Other E	**2.09**	**-55.149**	**-2738.7%**	**-53.239**	**-3.5%**	**-128.328**	**141.0%**	**-160.899**	**25.4%**	**-268.565**	**66.9%**
WESTERN HEMISPHERE											
Select Andean Community											
Colombia	172.201	148.452	-13.8%	63.413	-57.3%	73.111	15.3%	65.75	-10.1%	55.794	-15.1%
Peru	57.63	48.275	-16.2%	32.666	-32.3%	19.188	-41.3%	22.837	19.0%	19.003	-16.8%
Venezuela	518.676	334.207667	-35.6%	183.369	-45.1%	301.704	64.5%	436.467	44.7%	137.807	-68.4%
Total Andear	**802.407**	**584.275667**	**-27.2%**	**300.473**	**-48.6%**	**426.119**	**41.8%**	**598.263**	**40.4%**	**261.892**	**-56.2%**
Select Central America											
Total Central	**148.037**	**163.298**	**10.3%**	**120.109**	**-26.4%**	**69.128**	**-42.4%**	**73.026**	**5.6%**	**45.689**	**-37.4%**
Select MERCOSUR											
Argentina	253.791	289.239	14.0%	56.542	-80.5%	48.54	-14.2%	-120.3	-347.8%	-185.616	54.3%
Brazil	-620.44	-286.055667	-53.9%	-905.397	216.5%	-847.123	-6.4%	-510.323	-39.8%	-821.451	61.0%
Chile	97.252	103.678	6.6%	57.815	-44.2%	50.028	-13.5%	46.491	-7.1%	68.692	47.8%
Total MERC	**-234.097**	**134.463333**	**-157.4%**	**-762.527**	**-667.1%**	**-736.566**	**-3.4%**	**-578.441**	**-21.5%**	**-939.42**	**62.4%**
NAFTA											
Canada	10552.998	10585.742	0.3%	12709.368	20.1%	11967.297	-5.8%	10584.813	-11.6%	10751.016	1.6%
Mexico	-3739.74	-4979.606	33.2%	-7496.186	50.5%	-6103.539	-18.6%	-6170.124	1.1%	-8743.803	41.7%
Total NAFT	**6813.258**	**5606.136**	**-17.7%**	**5213.182**	**-7.0%**	**5863.758**	**12.5%**	**4414.689**	**-24.7%**	**2007.213**	**-54.5%**
ALL OTHERS	**670.014**	**551.512**	**-17.7%**	**310.677**	**-43.7%**	**244.436**	**-21.3%**	**298.112**	**22.0%**	**201.71**	**-32.3%**

Source: U.S. Census Bureau

Prepared by: Forrest Nielsen, 202/482-1418 Feb. 25, 2003.

Notes:

1) The ASEAN region comprises Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam.

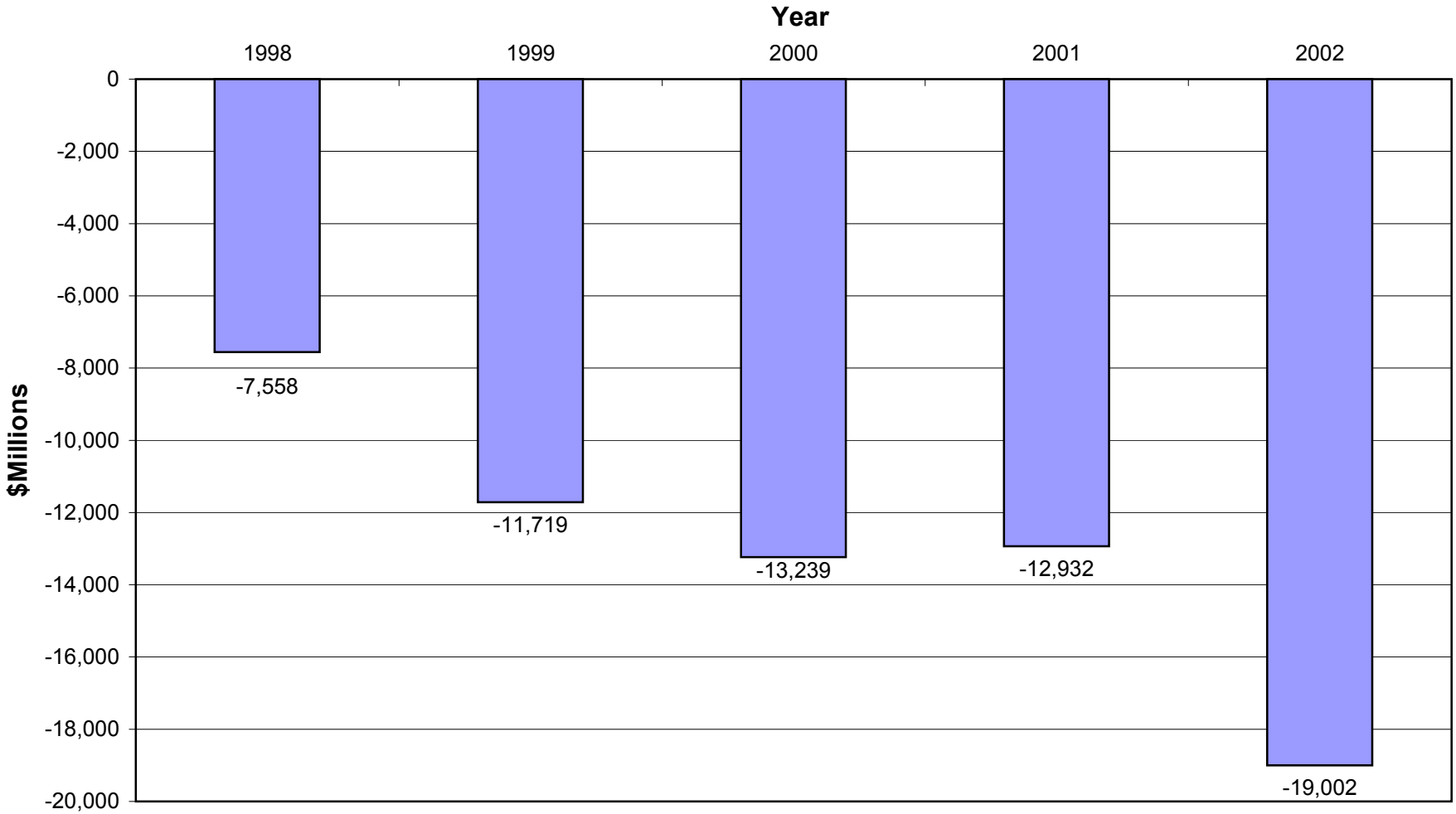
2) The European Union comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom. As of 1995, Austria, Finland, and Sweden are included in the total.

3) The Andean Community comprises Bolivia, Colombia, Ecuador, Peru, and Venezuela.

4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Panama.

5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay.

Chart 6
U.S. Automotive Parts Trade Balance, 1998-2002



Source: U.S. Department of Commerce, Bureau of the Census.
2002 data is annualized using Year-To-Date (Jan.-Sept. 2002) data.

Table 15

Acquisitions of U.S. Automotive Parts Companies (SIC 3714)

	1997	1998	1999	2000	2001	2002
Number of all Deals*	62	63	59	41	41	NA
Number of Disclosed Deals**	20	24	28	11	13	NA
Value of all Deals* ($Millions)	4,444.8	22,495.4	7,363.8	6,656.5	517.8	NA

Source: Thomson Financial IBCM in AAIA *Aftermarket Factbook 2002/2003.*

*Includes deals with and without reported values.

**Includes deals with reported values of $1 million or greater and majority partners.